



DEPARTMENT OF THE AIR FORCE
59TH MEDICAL WING (AETC)
LACKLAND AIR FORCE BASE TEXAS

10 MAR 2016

MEMORANDUM FOR SGVT

ATTN: CAPT MICHAEL D SEGALL

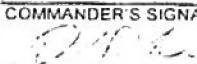
FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled Shear Bond Strength of Metal Brackets to Zirconia Conditioned with Various Primer-Adhesive Systems presented at American Association of Orthodontists 116th Annual Session, Orlando, FL 29 April – 3 May 2016 with MDWI 41-108, and has been assigned local file #16107.
2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.
3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are 59 MDW staff member, we can forward your request for funds to the designated wing POC.
4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

Linda Steel-Goodwin

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS			
TO: Clinical Research Division/SGVU (59th CSPG/SGVU)		FROM: (Name/Rank/Office Symbol) Segall, Michael D., CPT, 59 DTS/SGDTR	
		PROTOCOL NUMBER: FWH20150036N	
PROTOCOL TITLE Shear Bond Strength of Metal Brackets to Zirconia Conditioned with Various Primer-Adhesive Systems			
1 TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED Shear Bond Strength of Metal Brackets to Zirconia Conditioned with Various Primer-Adhesive Systems			
2 IS THIS MATERIAL CLASSIFIED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
3 IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT, ETC.? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (NOTE: If the answer is 'YES' then attach a copy of the Agreement to the Publications/Presentations Request Form)			
4 MATERIAL IS FOR (Check appropriate box or boxes for approval with this request) (ATTACH COPY OF MATERIAL TO BE PUBLISHED/PRESENTED)			
<input type="checkbox"/>	PUBLICATION/JOURNAL (List intended publication/journal)		
<input type="checkbox"/>	PUBLISHED ABSTRACT (List intended journal)		
<input checked="" type="checkbox"/>	POSTER (To be demonstrated at meeting/Name of Meeting, City, State, and Date of Meeting) American Association of Orthodontists 116th Annual Session, Orlando, FL, 29 APR-3 MAY 16		
<input type="checkbox"/>	PLATFORM PRESENTATION (At civilian institutions/Name of Meeting, State, and Date of Meeting)		
<input type="checkbox"/>	OTHER (Describe: Name of Meeting, City, State, and Date of Meeting)		
POINT OF CONTACT			
5 WHO IS THE PRIMARY WHASC POINT OF CONTACT? (Last, First, MI) (Include email) 59 DTS/59 DG/SGDTR			DUTY PHONE/PAGER No 210-292-9038
AUTHORSHIP AND CO-AUTHOR(S) (List in the order they will appear in the manuscript)			
LAST NAME, FIRST NAME AND MI	GRADE/RANK	SQUADRON/GROUP/OFFICE SYM	INSTITUTION (If not 59 MDW)
a Primary/corresponding author Penton, Brian	LtCol	SGDTR	
b Vandewalle, Kraig	Col (ret.)	SGDTG	
c			
d			
e			
f			
g			
h			
i			
j			
I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401_IP AND 59 MDWI 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.			
AUTHOR'S PRINTED NAME/RANK/GRADE Michael D. Segall/CPT/O4		AUTHOR'S SIGNATURE SEGALL, MICHAEL DAVID. 1379117887,	DATE 26 Jan 2016
COMMANDER'S PRINTED NAME, RANK DAVID P. LEE, Col/O6		COMMANDER'S SIGNATURE 	DATE 27 Jan 2016

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS			
1st INDORSEMENT (SGVU Use Only)			
TO: Clinical Research Division 59TH CSPG/SGVU (Contact 292-7141 for email instructions)	1 DATE RECEIVED <div style="font-size: 1.2em;">2/26/2016</div>	2 ASSIGNED PROCESSING REQUEST FILE NUMBER <div style="font-size: 1.2em;">16107</div>	
3 DATE REVIEWED <div style="font-size: 1.2em;">29 Feb 2016</div>	4 DATE FORWARDED TO PA		
5 AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES (If yes, give date) <input type="checkbox"/> N/A			
6 COMMENTS <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED <div style="font-size: 1.2em;">The article is approved.</div>			
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER <div style="font-size: 1.2em;">Rocky CALCOTE, PhD CLINICAL RESEARCH ADMINISTRATOR</div>	SIGNATURE OF REVIEWER <div style="font-size: 1.2em;">Rocky Calcote</div>	DATE <div style="font-size: 1.2em;">29 Feb 2016</div>	
2ND INDORSEMENT (PA Use Only)			
TO: OFFICE OF PUBLIC AFFAIRS (PA)	1. DATE RECEIVED <div style="font-size: 1.2em;">9 March 2016</div>	2 DATE FORWARDED TO 59TH CSPG/SGVU <div style="font-size: 1.2em;">10 March 2016</div>	
3. COMMENTS <input checked="" type="checkbox"/> APPROVED (In compliance with security and policy review directives) <input type="checkbox"/> DISAPPROVED			
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Christopher Carwile, TSgt/E-6, NCOIC, PA	SIGNATURE OF REVIEWER CARWILE.CHRISTOPHER STEWART.128047729 ER.STEWART.128047729 <small>Digitally signed by CARWILE.CHRISTOPHER STEWART.128047729 DN: cn=US, ou=U.S. Government, ou=DoD, ou=PR3, ou=USAF, c=CARWILE.CHRISTOPHER STEWART.128047729 Date: 2016.03.10 09:47:58 -0500</small>	DATE <div style="font-size: 1.2em;">10 March 2016</div>	
3RD INDORSEMENT (SGVU Use Only)			
TO: 59 CSPG/SGVU			1 DATE RECEIVED
2 SENIOR AUTHOR NOTIFIED BY PHONE OF APPROVAL OR DISAPPROVAL <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> COULD NOT BE REACHED <input type="checkbox"/> LEFT MESSAGE			
3 DATE WRITTEN NOTICE OF APPROVAL AND CLEARANCE MAILED TO AUTHOR			
4. COMMENTS <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED			
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER	SIGNATURE OF REVIEWER	DATE	

Shear Bond Strength of Metal Brackets to Zirconia Conditioned with Various Primer-Adhesive Systems

Primary Author- 1. Michael Segall, TORP, San Antonio, TX
Co-Authors- 2. Brian Penton, TORP, San Antonio, TX
3. Kraig Vandewalle, 2-year AEGD, San Antonio, TX

ABSTRACT

Purpose: The purpose of this study was to measure the shear bond strength (SBS) of adhesive-coated metal brackets to zirconia conditioned with four different zirconia primer systems produced by 3M,Ormco, Reliance, and Kuraray. Additionally, bond failure patterns were characterized using the Adhesive Remnant Index survey. **Methods:** 40mm by 19mm presintered zirconia blocks (BruxZir, Glidewell Laboratories, Newport Beach, CA) were prepared to provide enough substrate surface area for 100 Victory brackets (3M, Monrovia, CA). The samples were equally divided into five groups– a control not containing a zirconia primer (group 1), and four variable groups possessing zirconia primers manufactured by 3M,Ormco, Reliance, and Kuraray (groups 2-5, respectively). After bonding the brackets on the zirconia using the designated primer system and technique, a single-bladed Instron machine (Norwood, MA) individually sheared the brackets off the zirconia to calculate the SBS. The zirconia surface corresponding to each sample was further examined under 10x magnification to describe the type of failure by assigning an Adhesive Remnant Index (ARI) score. **Results:** A significant difference was found among the groups with respect to SBS ($p<0.001$). Group 3 had the highest SBS, and it was significantly greater than all the other groups ($p<0.05$). Group 2, 4, and 5 exhibited significantly higher SBS than group 1 ($p<0.05$), but they did not differ from each other ($p>0.05$). **Conclusion:** Surface pretreatment with zirconia primers contributes to an increase in SBS compared to the group without those primers for bonding metal brackets to zirconia prostheses.

The views presented are those of the speaker or author and do not necessarily represent the views of DoD or its components.



DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

4 March 2016

MEMORANDUM FOR 59 MDW

ATTN: Captain Michael Segall

FROM: 502 ISG/JA

SUBJECT: Ethics Review for Poster Abstract Approval Request (Capt Segall)

1. A request for a legal review of a poster to be presented at the American Association of Orthodontics 116 Annual Session in Orlando, FL was submitted by Capt Segall. This legal review is limited to the ethics issues regarding the presentation. The poster included the required disclaimer discussed below. A Public Affairs review will be required if it has not already been obtained. There are no conflict of interest issues with presenting this research at this professional society meeting.
2. FACTS: Capt Segall plans to present the poster abstract titled "Shear Bond Strength of Metal Brackets to Zirconia Conditioned with Various Primer-Adhesive Systems" at the American Association of Orthodontics 116 Annual Session in Orlando, FL, which is scheduled from 29 April – 03 May 2016.
3. LAWS AND REGULATIONS: DoD 5500.07-R, Joint Ethics Regulation (JER), section 3-305 lays out rules governing "Teaching, Speaking and Writing." If the presentation will "deal in significant part with any ongoing or announced policy, program or operation" of the Air Force, the presenter is required to include a disclaimer that states the "views presented are those of the speaker or author and do not necessarily represent the views of DoD or its Components."
4. ANALYSIS: Although the poster abstract does not "deal in significant part with any ongoing or announced policy, program or operation" of the Air Force, Capt Segall's affiliation with the Air Force may be included in the abstract, and the information was obtained through military medical practice. However, the authors included the required disclaimer that the views presented are those of the authors and do not necessarily represent the views of DoD or its Components on the slide presentation. Although the disclaimer language included on the presentation is not verbatim from the JER, the language used is appropriate and clearly captures the intent of the language used in the JER. A Public Affairs review will be needed if it has not already been obtained. There are no apparent conflicts of interest that would prohibit the presentation.

CONFIDENTIALITY NOTICE: This opinion contains attorney-work product and information protected under the attorney-client privilege, both of which are protected from disclosure under the Freedom of Information Act, 5 U.S.C. §552. Do not release this document without the prior consent of 502 ISG/JA.

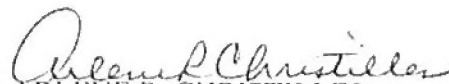
5. CONCLUSIONS: The poster abstract for review included the disclaimer required by the JER. The disclaimer must be included on the abstract. There are no conflicts of interest.

6. If you have any questions, please call me at 210-671-5771.



CHAD E. CHRISTENSON
Legal Intern

I concur.



ARLENE R. CHRISTILLES
Chief, Civil Law

CONFIDENTIALITY NOTICE: This opinion contains attorney-work product and information protected under the attorney-client privilege, both of which are protected from disclosure under the Freedom of Information Act, 5 U.S.C. §552. Do not release this document without the prior consent of 502 ISG/JA.